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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/918,809	07/31/2001	David W. Boerstler	AUS920010302US1	4476
7590	11/17/2004		EXAMINER WONG, LINDA	
Kelly K. Kordzik 5400 Renaissance Tower 1201 Elm Street Dallas, TX 75270			ART UNIT 2634	PAPER NUMBER

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/918,809

Applicant(s)

BOERSTLER ET AL.

Examiner

Linda Wong

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7, 9, 12, 14-18 and 20 is/are allowed.
- 6) ☐ Claim(s) 23-32 is/are rejected.
- 7) ☒ Claim(s) 8, 10, 11, 13, 19, and 21-22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Drawings

1. The drawings are objected to because
 - a. In Fig. 5, a label for 506 should be provided.
 - b. In Fig. 7, a label for 720 should be provided.
 - c. In Fig. 7, a label for 740 should be provided.
 - d. In Fig. 7, a label for 738 should be provided.
 - e. In Fig. 7, a label for 724 should be provided.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:
 - a. On page 5, the sentence "UP 110 is a lead phase error signal which is a logic one during a cycle of if the phase of REF 114 leads Vo 107..." is confusing due to the use of "of if" after cycle.

Art Unit: 2634

- b. On page 5, the sentence "UP 110 and DN 111 are used as up/down count inputs to Phase Polarity counter (PPC) 102 as inputs to charge pump CP104" is confusing. Are the UP 100 and DN 111 used as input for both the Phase Polarity counter and pump CP 104?
- c. On page 6, the sentence "The lead and lag phase error signals are used to generate a phase error signal in PPC 102 which proportional the relative difference between ..." should include "is" between "which" and "proportional" and "to" should be included between "proportional" and "the".
- d. In the description of Fig. 3, on page 9, the use of UP 112 and DN 113 are not included in the diagram. It is suggested that the term UP 112 should be changed to UP 110 and DN 113 should be changed to DN 111.
- e. In the description of Fig. 7, on page 11, the use of "Display 739" is not included in the figure. It is suggested that the term "Display 739" be changed to "Display 738".

Appropriate correction is required.

Claim Objections

- 3. **Claims 8, 10,19,21,30, and 32**, line 1 recites the limitation "control voltage" in claims 1, 18,20,29, and 31, respectively. There is insufficient antecedent basis for this limitation in the claim.

Art Unit: 2634

4. **Claims 11 and 22**, line 1 recites the limitation "first threshold value" and "time window" in claim 1 and 12, respectively. There is insufficient antecedent basis for this limitation in the claim.
5. **Claim 13**, line 1 objected to because of the following informalities: a semicolon should be placed between "pulse" and "if" to clarify the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. **Claims 23-32** are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure, which is not enabling. The mention of a CPU comprising a PLL is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).
 - a. Regarding **claim 23-32**, the recitation of a "CPU further comprising a phase locked loop (PLL) in [the] clock generator". The claim further specifies that the PLL contain a voltage controlled oscillator (VCO). In the specification, page 11-12, line 24 and lines 1-2, a PLL may be included within the system, 700. The specification does not indicate that the CPU comprises of a PLL. Therefore, claims 23-32 is not supported by the specification as disclosed. On a technical aspect, the existence of a PLL within a CPU is not possible. The definition of a CPU, "Computer Dictionary 2nd Edition" page 69, states that a CPU "has the ability to fetch, decode, and execute instructions and to transfer information to and from

Art Unit: 2634

other resources over the computer's main data-transfer path, the bus". A PLL, specifically a VCO within the PLL, would not be used to provide such functionalities. It is suggested that the use of "CPU" be altered to "data processing system", as was explained in your specification on page 11-12, line 24 and lines 1-2.

Allowable Subject Matter


7. Claims 1-7,9,12,14-18,20 are allowed. The existence of a PLL comprised of a generation of a lead and lag error signal, a phase error, a variable first gain signal, variable second gain signal, control signal and a VCO controlled by the control signal does not appear in any prior art.
8. Claims 23-32 would be allowable over the prior art rejection if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linda Wong whose telephone number is 571-272-6044. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on (571) 272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2634

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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